

POST-DEACTIVATION SURVEILLANCE AND MAINTENANCE PLANNING

Post-Deactivation Surveillance and Maintenance Planning

Dependence of End-Points Planning on S&M Planning
Primary Surveillance Concerns
Typical Deactivation S&M Plan Contents
Example of a Post-Deactivation S&M Plan

Dependence of End-Points Planning on S&M Planning

One of the key elements of end-point planning is knowing what the post-deactivation S&M activities will be so that conditions can be established to support them. The post-deactivation S&M plan specifies the surveillance, inspection, and maintenance of the facility in the deactivated state. It should address the activities, the locations in which they will be conducted, and their frequency. Part of the S&M planning is deciding which spaces must be accessed and which equipment must be operated. This should be agreed upon with the organization that will receive the facility for subsequent S&M and, where needed to meet a stakeholder, regulatory, and tribal nations commitment.

DOE G 430.1-2, IMPLEMENTATION GUIDE FOR SURVEILLANCE AND MAINTENANCE DURING FACILITY TRANSITION AND DISPOSITION addresses excess facility S&M.

A preliminary Post-Deactivation S&M Plan should be developed to support the End-Points Description and Criteria. Conditions will determine the S&M requirements, but the cost of meeting certain end-point criteria must be balanced against the cost of the S&M. In some cases, it may be necessary to perform life-cycle-cost analysis to determine the final end-point.

It would be imprudent to await a complete, final, detailed S&M plan before end-point planning. Indeed, in some cases, S&M plans may be constrained by what can be accomplished during deactivation. Thus, developing an S&M plan can become an iterative effort with deactivation end-point planning. However, it is important for purposes of end-point planning that a preliminary S&M plan be written as soon as possible during deactivation, even if the full details cannot be specified.

Another important reason for early preparation of the S&M plan is that people who have operated and maintained the facility have considerable knowledge and are in good position to recommend what the activities should be. Thus, developing the plan in the early stages should be a cooperative effort between the deactivation organization and the receiving organization.

Primary Surveillance Concerns

Under the presumption that many facilities will be deactivated to a passive state, the primary concerns for surveillance are related to:

- 1) animal intrusion
- 2) structural integrity degradation
- 3) water in-leakage
- 4) contamination migration

5) unauthorized personnel entry

In addition, for facilities where there is intrinsic economic value and for which the ultimate disposition is likely to be to commercial or private entities, theft protection becomes important. This is not likely to be the case for old, radioactively contaminated facilities.

Typical Post-Deactivation S&M Plan Contents

The contents of a Post-Deactivation S&M plan will vary in scope and content from project to project. In general, the plan should address:

- Routine S&M activities.
- Deviations from the S&M routine, special inspections, and activities conducted infrequently.
- Unusual situations or unsatisfactory conditions.

Typical contents of the post-deactivation S&M plan are:

- **Introduction** - Define the envelope and buildings in the facility that is subject of the S&M plan. Provide a plot plan type sketch or drawing to indicate the scope. Describe any unusual situations such as portions of a building that may remain operational and managed by a different organization.
- **Purpose** - Briefly outline the specific objectives of the post-deactivation S&M phase. Objectives can relate to contamination control, physical security, hazard isolation, preservation of economic assets, and others. The specific types of activities are addressed later. The planned level of effort to conduct S&M should be stated - for example, effort minimized to the degree feasible.
- **Background** (optional) - Appropriate if there are special circumstances that might affect the S&M plan. For example, modifications to the authorization basis and safety category of the facility. If a reference to the operating background of the facility is to be included, it would be better to rely on other documents for this purpose and to refer to them, rather than write new documents solely for purposes here.
- **Description of Surveillance and Maintenance Activities** - This section should address the areas of surveillance and maintenance listed in DOE G 430.1-2, Section 5.3. This is the key part of the S&M plan and is likely to be the most extensive. Example sections are:

- 1) Facility Operations
- 2) Facility Maintenance
- 3) Quality Assurance
- 4) Radiological Controls
- 5) Hazardous Material Protection
- 6) Health and Safety/Emergency Preparedness
- 7) Safeguards and Security
- 8) Cost and Schedule

- **Regulatory Compliance** - Describe how regulations applicable to the specific facility configuration and conditions, as well as any special agreements with the State and/or Tribal Nations, are to be addressed during post-deactivation S&M mode.
- **References** - List references that have specifically been used for the post-deactivation S&M planning. Do not refer to general documents, such as regulations or DOE orders, unless there is some unique aspect of the post-deactivation S&M Program that is a direct implementation requirement.

Example of a Post-Deactivation S&M Plan

The post-deactivation S&M plan for the UO₃ facility at Hanford is provided as an example. The reader is advised to judiciously review the contents and ensure appropriate application prior to use. (For example, much of this may not be needed for a relatively simple facility. A checklist might suffice.) Also note that this example is several years old and some of the organization and document references may no longer exist.

UO₃ FACILITY SURVEILLANCE AND MAINTENANCE PLAN

I. Introduction

This document describes the surveillance and maintenance (S&M) plan for the UO₃ Plant after deactivation is complete, up to the initiation of decommissioning. The S&M activities will be integrated into the decommissioning work and phase out as decommissioning is completed.

A tailored approach was used to determine which elements of the various DOE orders apply to the UO₃ Plant during the S&M period. Since the UO₃ Plant has been reclassified from a nuclear facility to an industrial facility and will be unoccupied, many of the elements do not apply.

The S&M plan includes the following sections:

- Introduction
- Background
- Purpose
- Transition Activities
- Description of Surveillance and Maintenance Activities
- Costs and Schedule
- Progress Reports

The UO₃ Facility is shown in Figure 1 (in original, not included in this handbook) and for the purpose of this S&M plan is defined as follows:

- The 224-U building, 224-UA building, 272-U building, 2715-U, 2715-UA, 2716-U, 203-U, 203-UX, UNH truck pad, the waste shed, six 100,000 gallon tanks in the 211-U tank farm, 211-U 307 Pump Pit, 211-U Acid Loading Station, the 207-U Retention Basin, and 207-U Sample Shack.

The 2714-U building and T-hopper storage pad which were part of the UO₃ Facility when it operated will not be transferred to the EM-40 program until later since the UO₃ powder from previous campaigns is still stored in T-hoppers on the pad and depleted UO₃ from previous campaigns is stored in drums inside the 2714-U building. This area will be deactivated and transferred to EM-40 later along with the PUREX Plant.

Figure - UO₃ Site Map
(Not included in End-Points WEB Page)

II. Purpose

The purpose of this S&M plan is to describe the S&M program for the UO₃ Facility from the time that deactivation is complete up to initiation of decommissioning. The S&M program will be

phased into operational activities when decommissioning begins. The S&M plan may need to be upgraded as preparations are made for decommissioning.

The number of people that have access to the facility will be kept to a minimum during S&M. This minimizes the safety requirements that must be met for the facility that in turn minimizes the cost of the S&M program.

Specific objectives of the S&M program for the UO3 facility are as follows:

- 1) Ensure adequate containment of contamination.
- 2) Provide physical safety and security control.
- 3) Maintain the facility in a manner that will minimize potential hazards to the public.
- 4) Provide a mechanism for the identification and compliance with applicable environmental, safety, and health requirements.

III. Background

The UO3 Plant was used to convert uranyl nitrate hexahydrate solution from the PUREX Plant into a solid UO3 powder. The UO3 Plant processing schedule was determined by the PUREX uranium product inventory buildup. The last operating campaign was completed in June 1993. Deactivation of the facility began as soon as the campaign was finished in preparation for transfer from the DOE EM-60 program to the EM-40 program. At that time, surveillance and maintenance responsibilities for the UO3 Plant will be transferred from Westinghouse Hanford Corporation (WHC) to Bechtel Hanford Incorporated (BHI).

The purpose of the deactivation project was to establish a passively safe and environmentally secure configuration for the UO3 Facility and preserve that configuration for a ten year horizon. When deactivation is completed, the plant will be unoccupied, empty of portable equipment and furniture, and locked.

A hazards classification evaluation was done for the UO3 Facility in a deactivated state. The evaluation determined that the facility could be reclassified from a nuclear facility to an "other industrial facility" with no hazardous waste activities when deactivation is completed. The determination was based on the fact that nearly all radioactive material and hazardous materials have been removed. The hazards classification evaluation was done per DOE-EM-STD-5502-94, *Hazard Baseline Documentation*, and reported in WHC-SD-CP-HC-004, *UO3 Building Hazards Classification - Deactivated State*. The *UO3 Plant Final Safety Analysis Report*, SD-CP-SAR-002, will be archived when deactivation is completed since an FSAR is not needed for industrial facilities.

During deactivation, the UO3 Facility was stabilized so that when it is transferred to the EM-40 program, only a minimal effort would be required for S&M activities. All process equipment, instrumentation, and HVAC systems in the UO3 Facility were shut down. During S&M, the buildings will be unoccupied and there will be only quarterly monitoring of the facility condition. The building doors and the gates in the perimeter fence will be locked to limit access. The facility will be entered only for quarterly surveillance or to correct deficiencies identified during the surveillance entries.

The following activities have been completed to isolate source material and mitigate contamination migration:

- Process ventilation stacks were isolated (capped or blanked).
- All water sources have been isolated to the individual buildings. The main underground headers will be blanked after facility transfer to ensure no in-leakage occurs.

- Heating, Ventilation and Air Conditioning (HVAC) have been sealed to reduce the potential migration of contamination and to keep water and small animals out.
- Miscellaneous wall penetrations were sealed.
- Electrical power was disconnected and in the case of 224-U and 224-UA, lighting was installed or modified to allow safe performance of the surveillance.
- All drains to the sanitary sewer were sealed thus isolating the buildings from the sanitary sewer.
- The main incoming steam to the UO3 facility has been shut off and the main isolation valve lock/tagged closed. KEH Utilities will remove the valve during the scheduled spring outage. This valve removal has been added to the Post-Transition Punchlist.
- All sumps and floor drains were sealed and either plugged or grouted.
- The trench that runs from 224-UA to 224-U (C-cell) was tied into the 207-U retention basin pipe for routing of storm water buildup from the backside contamination zone areas to the 207-U basins for solar evaporation.
- All sinks and toilets were removed and sealed.
- Blind flanges and blanks were used to isolate pipes containing UO3 powder from the process system.
- The cover plates on the 203-U enclosure trench were replaced with grating to assist in evaporation of storm water.
- All "no access" doors and large roll up type doors were sealed using an expansion foam.
- Door sweeps were repaired and/or verified to be in good condition to minimize potential vermin infestation.

IV. Transition Activities

The UO3 Facility will be officially transferred from the DOE EM-60 program to the EM-40 program by a Memorandum of Agreement. The UO3 facility will be accepted "as is" by EM-40 except for a few elements of the deactivation endpoint criteria that have not been met at the time of transfer. These items have been placed on a punch list and will be finished after deactivation is complete using EM-60 funding. The details of how the work will be completed will be addressed in the Memorandum of Agreement.

Endpoint criteria for deactivation activities have been defined in WHC-SD-WM-TPP-052, *UO3 Deactivation End-Point Criteria*. Documentation that the endpoint criteria have been met is provided by the signatures on endpoint criteria tracking sheets. The tracking sheets have been signed by both the UO3 Plant Deactivation Management (WHC) and Decommissioning Projects, Inactive Facilities Surveillance and Maintenance (BHI).

Post-Transition Punch list items from the endpoint criteria will be completed after facility transfer using EM-60 funding. The items are listed below and described briefly in the paragraphs that follow.

- 1) Closure of QUEST item TTA-90-0000-A/BMPF-8.
- 2) Application of a sealant to the 224-UA building roof to verify the building structural integrity for a minimum of five years.
- 3) Removal of dangerous and mixed waste drums from the 90-day waste storage pad.
- 4) Isolation of the main raw and sanitary water headers to the UO3 Plant at the most consolidated point upstream from the facilities and drain lines.
- 5) Isolation of steam at the most consolidated point upstream from the facilities and drain lines.
- 6) Supply lighting electrical supply drawings as part of the turnover package.
- 7) Complete TPA milestone M-80-00-T02. This milestone requires the facility to be deactivated and transferred to EM-40.

All QUEST items have been closed except item TTA-90-0000-A/BMPF-8. The DOE is required to verify closure of this item.

The roofs of buildings 224-U, 224-UA, and 272-U were inspected during 1994 and the 272-U roof was coated with weather tight sealant as recommended after the inspection. Application of sealant to the 224-UA roof was also recommended, but it was not finished before deactivation was completed since the sealant cannot be applied in cold weather. Roof repairs will be completed in the spring of 1995 (funded by EM-60).

Radioactive mixed waste was generated at the UO3 Plant from decontamination work on the loadout pads right up to completion of deactivation. The waste drums containing paint residues from the loadout pads and some containing oil must be sampled and the waste characterized before the drums can be shipped from UO3 Plant. A few drums of radioactive mixed waste may still be on the 90-day storage pad when deactivation is complete. WHC personnel will retain responsibility for inspection, characterization, and shipment of the waste drums using EM-60 funding.

The raw water and sanitary water supplies to the 224-U, 224-UA and 272-U buildings were isolated outside the buildings as deactivation proceeded. However, blanking of the main supply header to the UO3 facility will not be completed until later since water is needed until deactivation activities are nearly completed. Permanent isolation of the raw water headers to the UO3 Facility requires excavation down to the buried headers and installation of blanks at a number of locations. This work will not be finished until after deactivation is completed due to the magnitude of the effort involved and the possibility that the work will be slowed by inclement weather. This work will be completed in the first half of CY-95 using EM-60 funding.

The main incoming steam isolation valve to the UO3 facility has been locked closed (with vent/drain lines open downstream). Kaiser Engineers Hanford (KEH) Utilities will remove the valve and install blind flanges during the 200 West area steam outage scheduled for the spring of 1995.

Electrical lighting field work is complete, however the applicable drawings have not been updated to reflect current configuration. This will be done after deactivation is completed.

Historical records for the UO3 Facility will be turned over to BHI at the time of facility transfer. These records will be stored by BHI for reference during both the S&M period and when decommissioning activities begin. These records will include the following as a minimum:

- Endpoint criteria tracking sheets
- Deactivation work plans
- Deactivation log books
- Final radiation surveys
- Unusual Occurrence Reports
- Essential and general drawings of the facility
- Correspondence and backup information to support the endpoint criteria completion
- S&M procedure
- Safety analysis documentation
- Facility emergency plan information
- Chemical/hazardous substance inventory
- Fire hazards analysis
- Final inventory of special nuclear material

V. Description of Surveillance and Maintenance Activities

This section describes the surveillance and maintenance activities for the UO3 Facility. It is divided into the eight areas of surveillance and maintenance that are outlined in the DOE EM-40 *Decommissioning Resource Manual* (circa 1993.)

A. Facility Operations

During the S&M period, the UO3 plant will comply with the applicable sections of the DOE order for S&M of inactive DOE Facilities. Surveillance activities at the UO3 Plant will be conducted in accordance with WHC-CM-6-8, *Hanford Restoration Operations Administration*, Section 1.1, "Surveillance and Maintenance" (or equivalent BHI procedure).

All operating equipment inside the UO3 plant perimeter fence will be shut down by the time deactivation is completed. Facility operations will be limited to the following activities:

- Environmental monitoring of the 207-U Basin area
- Quarterly entries into the yard areas and the 224-U and 224-UA buildings for surveillance
- General housekeeping activities

The 207-U basins collect runoff from the roofs of the 224-U and 224-UA buildings and adjacent concrete pads. The outlets from the basins have been isolated and the accumulated water will be allowed to evaporate. The Operational Environmental Monitoring Program (OEMP) will continue to monitor the air and soil in the vicinity of the basins. This is done to show compliance with the National Emission Standards for Hazardous Air Pollutants (NESHAP) requirements for monitoring and estimation of emissions from diffuse and fugitive sources. The monitoring will be done using the existing equipment and is funded by the current environmental monitoring program.

The quarterly surveillance entries of the UO3 Facility will consist of a walk-through of the yard areas, building 224-U, and building 224-UA to check for any indication of structural defects, roof deterioration, posting deficiencies, water intrusion, animal or insect intrusion, hazardous conditions or unlabeled containers. Entries into the process cells will require a minimum of three people including one health physics technician. The S&M procedure will provide direction for the surveillance entries and include data sheets to document observations.

General housekeeping activities including tumbleweed removal and sand cleanup from outdoor contamination areas will be required during the S&M period.

B. Facility Maintenance

Since the deactivated UO3 Facility has been reclassified from a nuclear facility to an industrial facility, a Maintenance Implementation Plan was not required by the DOE Order 4330.4B. Maintenance activities will be covered by the maintenance program described in WHC-CM-6-8, Section 1.1, "Surveillance and Maintenance," or the BHI equivalent.

Since there will be no operating process equipment or HVAC system at the UO3 Facility, very little routine maintenance will be required. The only electrical equipment that will be maintained is the lighting circuits in the 224-U and 224-UA buildings. The power to the lighting circuits will only be switched on for surveillance entries. Defective light bulbs will be replaced during surveillance entries. Repairs to the lighting circuitry will be made when necessary.

Periodic inspections for roof and structural integrity will be the most frequent maintenance activity.

The roofs of buildings 224-U, 224-UA, and 272-U were inspected by a structural assessments senior engineer on September 9, 1994. The following actions were recommended:

- 1) Re-inspect the 224-U roof at an interval of four years.
- 2) Re-inspect the 224-UA roof at an interval of one year.
- 3) Re-inspect the 272-U roof at an interval of two years.
- 4) Seal the roofs of the 224-UA and 272-U buildings with an elastomer protective barrier to prevent in-leakage.
- 5) Perform an annual membrane inspection on the 224-U building.

- 6) Provide additional sealing material to all the pitch pans on the 224-U building roof to prevent in-leakage.

Items 1, 2, 3, and 5 are included in the surveillance and maintenance (S&M) procedure. The roofs of the 272-U and 224-UA buildings have been (or will be) sealed with an elastomer protective barrier as recommended in Item 4. If application of the protective barrier is not completed at the time of facility transfer, it will be completed in the spring of 1995 using EM-60 funding. Item 6 was completed as part of deactivation.

In addition to the roof inspections, structural assessments will be performed on the 224-U, 224-UA, and 272-U buildings every five years as recommended by the structural assessments senior engineer.

Roof repairs or replacement approximately every 20 years is the largest maintenance activity anticipated. Building demolition will be evaluated as an alternative to roof repairs.

C. Quality Assurance

The UO3 Plant will be included in the quality assurance program described in WHC-CM-6-8, Section 2.0 "Hanford Restoration Quality Assurance Program Plan," or the BHI equivalent.

D. Radiological Controls

During the S&M period, the UO3 plant will comply with the applicable sections of DOE Order 5480.11, *Radiation Protection for Occupational Workers*. Radiological control activities will be conducted as described in HSRCM-1 *Hanford Site Radiological Control Program*, WHC-CM-1-6 *Radiological Control Program*, WHC-CM-4-11, *ALARA Program*, or the BHI equivalent to these documents.

The following paragraphs describe how specific elements of radiological control will be implemented at the UO3 Facility during the S&M period.

D.1 External and Internal Radiation Exposure Control and Dosimetry

Radiological conditions at the UO3 Plant will be assessed and Radiation Work Permits prepared prior to each quarterly surveillance entry. The radiation work permit will specify protective clothing, respiratory protection requirements, and the activities that are permitted during the surveillance entry.

D.2 Air Monitoring

A program has been established to monitor radon levels inside the 224-U and 224-UA buildings. For each quarterly surveillance entry, Radiological Protection personnel will enter the area to collect the radon monitors. The information from the monitors along with contamination smears will be used to determine the respiratory protection and clothing requirements.

D.3 Radiological Monitoring and Contamination Control

Health Physics Technicians will assess the radiological conditions in the UO3 Facility for each quarterly entry as described earlier. They will also accompany surveillance personnel on the quarterly surveillance walk-through of radiation zones to monitor radiological conditions and to check for the spread of contamination. During these surveillance entries, personnel will check for evidence of animal or insect intrusion that may result in contamination spread.

D.4 Radiological Protection Record Keeping

Historical radiation survey data and other radiological records will be turned over to BHI at the time of facility transfer. These records will be stored by BHI for reference during both the S&M period and when decommissioning activities begin.

D.5 Radiological Area Boundaries, Postings, and Controls

Radiological area boundaries are posted and controlled at the UO3 Facility as required by the above listed documents. The postings will be checked during the quarterly surveillance entries. There are no fissile materials present in the UO3 Facility, nor any high or very high radiation areas.

E. Hazardous Material Protection

All hazardous waste was removed from the UO3 Facility during deactivation or will be removed within 90 days following generation and staging on the 90-day pad. The following hazardous materials will remain at the UO3 Facility during the S&M period:

- Mercury switches and lead/silver solder that are part of instrumentation in the control room, switchgear room and other locations. All visible mercury switches have been removed, but others remain inside equipment.
- Solidified uranyl nitrate hexahydrate in the drain lines from the ED-6 concentrator and TK-X-19 (no more than 15 gallons).
- Dioctyl phthalate (DOP) contamination in the HEPA filters left in the 224-UA loadout room and on the 224-UA roof.
- Approximately 2 liters of solidified UNH in the concrete-lined 203-U riser pit (30 feet below grade).
- Potential PCB or DOP bearing ballasts in the remaining light fixtures.
- Asbestos insulation on piping and vessels.

The abandoned 270-W tank located under the 2715-UA building will remain as is. The tank contents, if any, are unknown at this time. The WHC Tank Waste Remediation organization has taken responsibility for this tank and will perform a safety investigation and assessment in the future. Tank Waste Remediation Support (WHC) and EM-40 will need a separate agreement for access and work control associated with investigation of the 270-W tank contents.

The hazardous wastes described above will remain in the UO3 Facility through the S&M period. The wastes will be identified in WHC-SD-DD-HIE-002, *Hanford Surplus Facilities Hazards Identification Document*, or the BHI equivalent. During the quarterly surveillance entry, personnel will check for friable asbestos, unidentified/unlabeled containers, and suspect hazardous materials.

F. Health and Safety/Emergency Preparedness

A hazards assessment was conducted to determine the need for emergency planning at the UO3 Facility per DOE Order 5500.3A. The hazards assessment was reported in WHC-SD-PRP-HA-001, Rev. 2, *UO3 Plant Hazard Assessment*. The assessment concluded that there is negligible risk to people outside the facility from the residual material at the UO3 Facility. Nearly all radioactive materials and hazardous materials have been removed. However, the T-hopper powder storage (which will not be transferred to the EM-40 program until later) can threaten the safety of personnel at the deactivated UO3 Plant and at U Plant.

Since the UO3 Facility will not be occupied and the residual material in the facility presents negligible risk to people outside, an emergency plan is not required.

A fire hazard analysis (FHA) was completed for the UO3 Facility per DOE Order 5480.7A, *Fire Protection*. The FHA, WHC-SD-WM-FHA-003, *Fire Hazards Analysis for the Uranium Oxide (UO3) Facility*, concluded that all fire suppression and alarm systems could be deactivated. All known fire hazards and substantial amounts of combustible materials have been removed from the facility. Two fire hydrants located on opposite sides of the building complex provide adequate fire protection water supply to the facility.

During the quarterly surveillance entry, personnel will check for excess combustible materials, electrical hazards, occupational hazards, and housekeeping deficiencies.

G. Safeguards and Security

Since the deactivated UO3 Facility no longer has accountable quantities of SNM, vital equipment, or classified information, DOE Order 5632.2A, *Physical Protection of Special Nuclear Material and Vital Equipment* and DOE Order 5480.5 *Safety of Nuclear Facilities* do not apply to the UO3 facility during S&M. It has been reclassified from a Nuclear Facility to the "Other Industrial Facilities" category. However, access to the facility will be controlled to prevent radiation exposure or injury to personnel.

Access to the fenced areas and buildings of the UO3 facility will be controlled by BHI Decommissioning Projects, Inactive Facilities, which will have possession of the security keys to unlock gates and doors. Access will be limited to personnel who have current training or are escorted by trained personnel. Access Control for the UO3 Plant and other excess facilities is described in WHC-CM-6-8, *Hanford Restoration Operations Administration*, Section 1.3, "Surplus Facilities Access Control" or BHI equivalent.

Physical access control to buildings 224-U, 224-UA, 272-U, nearby smaller buildings and the adjacent yard area at the UO3 Plant is provided by a 8' high chain link fence topped by 3 strands of barbed wire. Vehicle access gates are located in the SW and NE sides of the perimeter fence. A pedestrian gate is located near the west corner. All of the gates in the perimeter fence will be locked when the UO3 Facility deactivation is completed. The doors to all the buildings inside the fence will also be locked or sealed to provide additional access control.

The 211-U tank farm is cordoned off with magenta and yellow chain with applicable radiological status postings, but is not fenced. There are no intrusion alarms at any of the UO3 Facilities.

There will not be any routine security patrols within the perimeter fences of the UO3 facility. Hanford Patrol will continue to provide routine security patrols in the vicinity as part of their patrols throughout the 200 West area.

H. Cost and Schedule

A brief description and work breakdown structure for the UO3 Facility surveillance and maintenance activities are given below. The air and soil monitoring around the 207-U basins is not included in the cost breakdown because it is not funded out of the Surplus Facilities budget. The Post-Transition Punchlist activities that will be finished after facility deactivation is completed also are not included since those activities are part of the PUREX/UO3 Deactivation Project. That work will be funded by the deactivation project except for the steam valve removal that is part of a planned steam valve replacement.

The EM-60 program through FY-95 will fund the UO3 Facility surveillance and maintenance work. Starting in FY-96, it will become part of the EM-40 program.

Four surveillance entries will be made each year on a quarterly basis beginning in February 1995.

Surveillance Entries (4)

	Man-hours	Est. Annual Cost (\$)
Operations	160 hrs	9,600
Engineering	80 hrs	4,800
Health Physics Tech	160 hrs	9,600
Contingency @ 20%		<u>4,800</u>
Subtotal		28,800
Remove potentially contaminated tumbleweeds		<u>10,000</u>
TOTAL ANNUAL COST		<u>\$38,800</u>

VI. Progress Reports

Progress and results of the S&M program will be reported to DOE as part of the monthly reports, and the mid-year and year-end reviews.

VII. References

WHC-SD-CP-HC-004, *UO3 Building Hazards Classification - Deactivated State* , E. N. Dodd III, (draft).

WHC-SD-WM-TPP-052, *UO3 Deactivation End-Point Criteria* , L. D. Stefanski, September 7, 1994.

WHC-CM-6-8, *Hanford Restoration Operations Administration* , Sections 1.1, 1.3, and 2.0.

WHC-SD-PRP-HA-001, Rev. 2, *UO3 Plant Hazard Assessment* , L. R. Campbell (draft).

WHC-SD-WM-FHA-003, *Fire Hazards Analysis for the Uranium Oxide (UO3) Facility* , D. M. Watt (draft).